

Rebuttal Report of Matthew Marx

December 11, 2013

REDACTED VERSION

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

IN RE: HIGH-TECH EMPLOYEES
ANTITRUST LITIGATION

No. 11-CV-2509-LHK

THIS DOCUMENT RELATES TO:

ALL ACTIONS

REBUTTAL REPORT OF MATTHEW MARX

December 11, 2013

HIGHLY CONFIDENTIAL
SUBJECT TO PROTECTIVE ORDER

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I. Introduction, Assignment, and Summary of Conclusions

1. I have been asked to assess the reply reports of Doctors Talley, Murphy, Lewin, and Snyder and also to determine whether these lead me to reconsider my previously expressed views. My assessment is that they do not. Exhibit 1 is my updated curriculum vita and Exhibit 2 lists the documents on which I relied in preparing this report. My findings are summarized as follows:

2. Defendants' experts argue that it would be costly and burdensome for companies to tailor Anti-Solicitation Agreements to individual collaborations, but they provide no evidence that this is true and moreover ignore the success of collaborations involving Defendants following the United States Department of Justice consent decree requiring such tailoring. They mistakenly assume that any employee involved in a collaboration is therefore visible to and subject to cold-calling by the collaborator, which is not realistic and exaggerates the supposed burden of tailoring such agreements.

3. Defendants' experts claim that the presence of an outside Director on a company's Board (or an advisory relationship, as in the case of Bill Campbell and Google) can justify a broad Anti-Solicitation Agreement for the sake of avoiding conflicts of interest, but they fail to identify specific examples of such conflicts at Defendants which led to such agreements. Moreover, according to their theory such Anti-Solicitation Agreements should be quite prevalent though none of the experts could summon a single example aside from the Defendants. Indeed, executives including the Defendants serve on boards successfully without such agreements, including at Defendant boards themselves.

4. Defendants' experts advance the notion that intellectual property protection should justify broad Anti-Solicitation Agreements, but examples they cite from Apple's attempt to threaten Palm as well as merger contracts are not relevant to the Defendants' conduct at issue. Moreover, Defendants' experts ignore that collaboration contracts between Defendants containing explicit confidentiality provisions did not also mention cold-calling.

5. Defendants' experts fail to explain how Defendants carried out important, strategic collaborations in the absence of Anti-Solicitation Agreements both before, during, and after the Class period. They give no evidence that the consent decree has not been adhered to or that it has harmed collaboration. Moreover, they neglect potential industry-wide or regional harm done insofar as Anti-Solicitation Agreements act as a brake on employee mobility.

6. Defendants' experts confuse product markets and labor markets in attempting to claim lack of skills overlap between Defendants' employees. They uncritically accept characterizations of Defendants' workforce composition that are contradicted by the evidence. They mischaracterize cold-calling as playing a minor role and neglect that the Anti-Solicitation Agreements affected the ability to use employee referrals.

7. Defendants' experts distort my research on employee non-compete agreements, mischaracterizing it as limited to the Michigan automotive industry in the 1980s when a reading of my work reveals that I examine data contemporaneous with the Class period and in California and from a variety of industries. They mistakenly assert that evidence that non-compete agreements depress wages is limited to workers who left their jobs and took lower-paying positions in different industries.

II. Arguments that Company-Wide, Indefinite-term Anti-Solicitation Agreements Were Justified by the Nature of the Technical Collaborations Between Defendants is Contrary to the Contemporaneous Evidence and to the Experience of Defendants Before and After the Conspiracy Period

8. Defendants' experts advance a series of arguments justifying the use of secretive Anti-Solicitation Agreements that were not limited with regard to the type of employees affected, geography, or the length of time. Dr. Snyder and Dr. Talley, for instance, argue that it would have been difficult ex ante for Google and Intel to have identified precisely the individuals to be involved in these collaborations. But they give no evidence showing that it is indeed burdensome to identify individuals involved in a collaboration and ignore that Google's own Do Not Call List

contains the names of individuals from Intuit.¹ Moreover, in support of this contention, Dr. Snyder uncritically accepts Defendants' estimates regarding the number of employees whose work touched on collaboration with other companies, such as "more than 1,000 Intel employees worked on Google Chrome related projects."² However, I seriously doubt that all of these 1,000+ Intel employees were visible to Google and thus at risk of being cold-called by them. In my own experience managing technical collaborations, it is standard practice for a small number of people to interface with the collaboration partner while a larger number of people work "behind the scenes." Defendants' experts provide no evidence to the contrary. Thus Dr. Snyder and Defendants' other experts exaggerate the difficulty of tracking workers or groups of workers involved in a collaboration.

9. The foregoing also reinforces the argument that increasing the compensation of workers who become visible to another company in the course of a collaboration is a viable alternative, particularly given the extensive benefits of the collaborations claimed by the Defendants in their interrogatory responses.

10. Moreover, Defendants agreed to use Anti-Solicitation Agreements in accordance with the Department of Justice consent decree and have continued to collaborate since that time as Apple CEO Tim Cook testified. If it has been "unduly burdensome",³ as Dr. Snyder claims, to comply with the terms of the consent decree, such is not evident in the strong financial performance of the Defendants, as I noted in my original report.

11. Moreover, as Dr. Snyder himself notes, Defendants continue to collaborate in the post-Class period.⁴ Among the collaborations he cites as yielding "new and innovative products"⁵ is the Intel/Google collaboration on Android. While Dr. Snyder's report mentions a start date of 2007 for the collaboration and implies that this led to 80% market share for Android,

¹ GOOG-HIGH-TECH-00008283.

² Snyder expert report, Exhibit 5.

³ Snyder expert report, ¶ 25.

⁴ Snyder expert report, Exhibit 5.

⁵ Snyder report, ¶ 65.

the September 2011 Huffington Post article cited clarifies that work had yet to commence: “The two companies will work together to optimize future versions of Google’s Android mobile software for Intel’s ‘Atom’ processor”, with the aim of shipping an Intel-powered Android phone “in the first half of 2012.”⁶ Hence, to whatever extent the Intel/Google collaboration contributed to Android’s smartphone dominance, those benefits were realized from collaborations after both companies had agreed to the DOJ consent decree.

12. Defendants’ experts also ignore contrary evidence regarding the motivations of the CEOs in entering into the agreements. For example, Dr. Talley ignores the Anti-Solicitation Agreements of Pixar with Lucasfilm and Apple as well as the corresponding admission of desire to suppress employee compensation by George Lucas and Ed Catmull. He also ignores Catmull’s testimony that Pixar owner Steve Jobs was aware of why Pixar was using Anti-Solicitation Agreements.⁷ He does not review the threats used by Steve Jobs to get Adobe, Palm, and Google to agree to Anti-Solicitation Agreements. Moreover, he ignores Google’s attempt, facilitated by Intuit Chairman Bill Campbell, to convince Facebook to enter an Anti-Solicitation Agreement in the absence of either a collaboration or a shared board member.

13. In their interrogatory responses, Defendants argued that their Anti-Solicitation Agreements were necessary to collaborations among them (emphasis mine):

a. Intel wrote that “active solicitation of a business partner’s employees tends to deprive the collaboration of key talent on which it depends and undermine the trust between the parties **necessary** to the collaboration’s success, thereby weakening or even **threatening the viability** of existing collaborations.”⁸

⁶ Snyder expert report, p. 32 ¶ 66.

⁷ “Well, I would have let Steve know what we were doing. I mean, so he knew that. I don’t remember any particular conversation. But he knew and understood the – what we were trying to do with the Northern California community.” Deposition of Ed Catmull, 61:15-19.

⁸ Intel’s Objections and Amended and Supplemented Responses to Plaintiffs’ Second set of Interrogatories 19:8-11.

b. Adobe wrote of its collaboration with Apple that “This partnership and extensive series of collaborations **required** mutual trust. The companies [sic] collaborative efforts...would have been undermined if they felt the need to constantly shield their employees.”⁹

c. Apple wrote that “its **decisions to refrain from cold calling companies of Adobe, Intel, Google, and Pixar were reasonably necessary** for the success of Apple’s relationships with each company”¹⁰ and that “Apple’s **decisions not to cold call employees of these key partners were vital** to Apple’s successful collaborations.”¹¹

14. Given these representations, Defendants’ experts do not adequately explain how Defendants have successfully executed technical collaborations without Anti-Solicitation Agreements—before, during, and after the Class period. As I described in my initial report, then-Adobe CEO John Warnock could not recall an Anti-Solicitation Agreement with Apple; his recollection is corroborated by the deposition testimony of Danielle Lambert, who testified that the Adobe/Apple Anti-Solicitation Agreement commenced no earlier than 2005.¹² If the Anti-Solicitation Agreement was so important, it is puzzling that these companies collaborated so successfully without one for two decades.

15. Moreover, as is evident from Intel CEO Paul Otellini’s deposition testimony,¹³ Intel and Microsoft conducted an enormously strategic and successful collaboration over the course of many years and without an Anti-Solicitation Agreement. Given that Defendants argue

⁹ Defendant Adobe Systems Incorporated’s Amended Answer to Plaintiff’s Consolidated Amended Complaint 24:9-19.

¹⁰ Defendant Apple Inc.’s Amended Responses to Plaintiffs’ Second Set of Interrogatories 12:27-28.

¹¹ Defendant Apple Inc.’s Amended Responses to Plaintiffs’ Second Set of Interrogatories 11:25-26.

¹² Deposition of Danielle Lambert, 192:25-193:8.

¹³ “Q. On what subjects or products has Intel communicated with—collaborated with Microsoft? A. Virtually everything we do and everything they do. I mean the—you know, most of our chips run Microsoft software somewhere along the way.

Q. Did you ever approach Microsoft about an agreement or an understanding with them not to solicit each other’s employees?

A. No.” Deposition of Paul Otellini, 97:25-98:8.

that Anti-Solicitation Agreements were important to preserving the trust essential to these collaborations, I disagree with Dr. Snyder that it is “not relevant” that Intel’s perhaps longest-standing collaboration was not governed by an Anti-Solicitation Agreement.¹⁴ Moreover, Apple did not have a company-wide Anti-Solicitation Agreement with Microsoft but rather appeared to avoid recruiting from only the Mac and Exchange divisions.¹⁵

16. Further to this point, whereas other of the Defendants’ experts emphasize that not having an Anti-Solicitation Agreement in place would make it difficult to put the best people on the collaboration for fear of them being poached, Dr. Talley argues that some technical collaborations bear little risk of poaching, for instance, “information exchange” and “high-level standard setting accords.”¹⁶ But even in those settings, information would need to be exchanged by people who would be visible to the collaborator. Perhaps Dr. Talley is arguing that Anti-Solicitation Agreements are only needed in important collaborations (“anticipated depth and volume of cooperation”, “extent to which information is shared”¹⁷); if so, such reasoning would not explain why Intel would not use an Anti-Solicitation Agreement with Microsoft, with which it had one of its deepest and most extensive collaborations.

17. Finally, Dr. Talley did not examine the post-Class conspiracy period¹⁸ or review the DOJ consent decree.¹⁹ Dr. Talley conceded in his deposition that there was no evidence to suggest that Defendants have violated the consent decree;²⁰ and he acknowledged that collaborations among Defendants continued after they agreed to the consent decree.²¹ Dr. Talley provided no examples of any technical collaborations that were prevented or weakened as a result of the consent decree. Dr. Talley conceded that the consent decree did not result in Paul

¹⁴ Snyder report, ¶ 64.

¹⁵ Exhibit 265.

¹⁶ Talley report, p. 25 ¶ 68.

¹⁷ Talley report, ¶ 68.

¹⁸ Talley deposition, 133:16-19.

¹⁹ Talley deposition, 270:8-10; 275:6-10.

²⁰ Talley deposition, 272:12-17.

²¹ Talley deposition 267:24-277:4.

Otellini leaving Google's Board²² or Bill Campbell ceasing to provide advice to Google's executives.²³

18. More generally, in arguing for the procompetitive impact of the collaborations Defendants' experts do not consider industry- or regional-level implications of discouraging mobility via indefinite-time, company-wide Anti-Solicitation agreements. Several scholars have argued that interorganizational mobility "permits the rapid diffusion of information, leading to industry-wide technological gains that arguably swamp the investment disincentives that weak entitlements may engender."²⁴ Professor Garmaise makes a similar point regarding non-compete agreements: enforceable noncompetition contracts may yield benefits to individual firms but may also generate offsetting negative externalities by restricting labor mobility.²⁵ This sentiment is backed up by Professor Alan Hyde's work on high-velocity labor markets;²⁶ by Professor AnnaLee Saxenian's claim that a key reason that Silicon Valley outpaced Boston's Route 128 technical corridor was the rapid movement of personnel from one company to another²⁷; by Professor Almeida and Professor Kogut's observation that the rapid diffusion of knowledge in the northern California / Silicon Valley is coincident with high levels of inventor mobility²⁸; and by Professor Breschi and Professor Lissoni's finding that biopharmaceutical spillovers are largely attributable to mobile inventors²⁹. To my knowledge, Defendants' experts have not

²² Talley deposition 176:16-22.

²³ Talley deposition 177:14-24.

²⁴ Lester, G. and E. Ryan, 2010. "Choice of Law and Employee Restrictive Covenants: an American Perspective." *Comparative Labor Law & Policy Journal* 31(2):392.

²⁵ Garmaise, Mark. "The Ties that Truly Bind: Noncompetition Agreements, Executive Compensation, and Firm Investment." *The Journal of Law, Economics, and Organization*. 27(2):376-425.

²⁶ Hyde, 2003. *Working in Silicon Valley: Economic and Legal Analysis of a High-Velocity Labor Market*. M.E. Sharpe.

²⁷ Saxenian, A. 1996 *Regional Advantage: Culture and Competition in Silicon Valley and Route 128*. Harvard University Press.

²⁸ Almeida, P., and B. Kogut, 1999. "Localization of Knowledge and the Mobility of Engineers in Regional Networks." *Management Science* 45(7):905.

²⁹ Breschi, Stefano and Francesco Lissoni, "Mobility of skilled workers and co-invention networks: an anatomy of localized knowledge flows." *Journal of Economic Geography* 9(4):439-468.

assessed the potential of Anti-Solicitation Agreements to attenuate positive externalities such as knowledge diffusion and broader technological gains. Instead, they focus on the interests of Defendants in discouraging employee mobility.

III. Defendants' Experts Argue Unconvincingly that "Maintaining Good Board Relations" Explains Defendants' Anti-Solicitation Agreements

19. Dr. Talley claims that I "paint[] an overly broad and simplistic picture of the overlapping executive relationships between the Defendants...ignoring the evidence of [their] potential procompetitive purpose."³⁰ Nowhere in my report do I say that directorships (including overlapping directorships) have no positive purpose; nor do I state that "interrelatedness between corporate entities is anomalous."³¹ My point regarding the relationships between Defendants in the original report is that the existence of these governance and advisory relationships help to explain the spread of rare, secretive agreements among a small number of co-located high-tech companies. Indeed, Dr. Talley was unable to identify any instance of an indefinite-term, company-wide Anti-Solicitation Agreement aside from those at issue in this case; nor could he recall having advised any company to adopt such an agreement.

20. Dr. Murphy argues that "maintaining good Board relations"³² is a justification for an Anti-Solicitation Agreement. He is joined in this line of reasoning by Dr. Talley, who claims that Anti-Solicitation Agreements "can be a mechanism to address conflicts of interest that may arise in this type of environment."³³ But Dr. Talley offers no evidence that any specific conflicts of interest drove the adoption of Anti-Solicitation Agreements between any Defendants. In the case of Bill Campbell asking for an Anti-Solicitation Agreement between Intuit and Google, one might imagine that his position as Chairman of Intuit, lead Director of Apple, and advisor to companies including Google might have introduced conflicts of interest of the sort Dr. Talley

³⁰ Talley Expert report, ¶ 75.

³¹ Talley Expert report, ¶ 13.

³² Murphy expert report, ¶ 37.

³³ Talley expert report, ¶ 23.

alleges could justify an Anti-Solicitation Agreement. But Shona Brown, Google VP People and member of the Executive Management Group (EMG) testified “I don’t recall any conversations on the topic of conflict of interest and Bill Campbell...I’m not aware of any specific steps that we took to identify conflicts of interest.”³⁴ She could also not recall any EMG meeting Campbell attended where he was asked to leave so that the EMG could have a discussion without him present.³⁵ Given this, there is no basis to assert that the Google/Intuit Anti-Solicitation Agreement was driven by potential conflicts of interest.

21. Moreover, Eric Schmidt was not yet serving on Apple’s Board at the time that the Apple/Google Anti-Solicitation Agreement was established, so Board relations could not have been a justification. Apple and Adobe do not share board members, so no such justification applies there either. Nor did Palm and Apple share a board member at the time of Steve Jobs’ threat to Ed Colligan. Google did not have a board member from Facebook (nor a collaboration) at the time it reached out to Facebook in hopes of establishing a “truce” via an Anti-Solicitation Agreement.

22. In addition, it is clear that Board members rendered service in the absence of an Anti-Solicitation Agreement. Paul Otellini continues to serve on the board of Google to this day, but Defendants offer no evidence that his service as a Director has been hampered in any way by the absence of a company-wide Anti-Solicitation Agreement.

23. Even if one were to accept Defendants’ experts’ characterization of maintaining good Board relations as a justification for an Anti-Solicitation agreement, which I do not, the nature of the time-indefinite, secretive, company-wide Anti-Solicitation Agreements is not consistent with the sort of agreement tailored to a Board member’s service.

24. First, Board members typically serve limited (though often renewable) terms, often three years, so the Anti-Solicitation Agreement should have been stipulated to last only for

³⁴ Deposition of Shona Brown 39:16-21.

³⁵ Deposition of Shona Brown 43:4-9.

the duration of the Board member's service. Yet this is not a characteristic of any of the Anti-Solicitation Agreements. For example, Intel is listed on Google's Do Not Cold Call List "Effective March 6, 2005";³⁶ no end date is mentioned.

25. Second, if the purpose were indeed to maintain good Board relations, one might expect the parties to be less secretive regarding the Anti-Solicitation Agreements. In fact, Board members might well want to go on record as having entered into an Anti-Solicitation Agreement for purposes of making it clear to their employer that they intend to avoid conflicts of interest. But the Anti-Solicitation Agreements in this case, as described in my initial report, were entered into quietly and actively concealed from most employees.

26. Third, if Anti-Solicitation Agreements were such an effective means of handling conflicts of interest and maintaining good Board relations, one would certainly expect them to be prevalent. However, this is not the case. Dr. Talley could not at his deposition name any company that had an Anti-Solicitation Agreement similar to those alleged here.³⁷ Neither could Dr. Snyder, in his deposition, name any non-Defendant that had used an indefinite-time, company-wide Anti-Solicitation Agreement.³⁸

27. Further, there are other ways to avoid a conflict of interest than by entering into an Anti-Solicitation Agreement. If the concern was that Board members may have poached employees they learned about in the course of their Board service, then Board members could have pledged not to be involved in any way with the recruiting of employees of a company whose Board they served on. Similarly, if the concern was that the Director may have held back useful information, including introducing Director's fellow employees to the company when they might have been helpful, then the company could have agreed not to cold-call any employees of

³⁶ GOOG-HIGH-TECH-00008283.

³⁷ "Q. Can you identify a single one? A. Not off the top of my head. If you give me some – a chance to think about it, I might – I might bring it up later on in the deposition." The record shows that he did not later volunteer any such examples. Deposition of Eric Talley, 34:4-7.

³⁸ Snyder deposition, 41:21-42:1.

the Director's company introduced to them via the Director. In neither case would it have been necessary to institute a company-wide, time-indefinite Anti-Solicitation Agreement.

28. In further support of the notion that governance can sufficiently motivate the use of an Anti-Solicitation Agreement, Dr. Murphy offers that the Anti-Solicitation Agreement between Apple and Pixar can be explained by the fact that "[Steve] Jobs thus lead [sic] both Pixar and Apple at the same time, and was particularly well-positioned to identify each company's talent,"³⁹ which could have led to a conflict of interest. This argument is difficult to accept, however, given that Jobs' tenure as CEO of both companies began in 1997, roughly a decade before Apple and Pixar entered the Anti-Solicitation Agreement in 2007, as described in my original report. If this potential conflict of interest had loomed large, one would think that the Anti-Solicitation Agreement would have been entered into at the outset of Jobs' tenure as CEO of both companies.

IV. Protection of Intellectual Property Does Not Explain Defendants' Anti-Solicitation Agreements

29. Dr. Murphy offers the episode involving Apple's attempt to establish an Anti-Solicitation Agreement with Palm as an example of "protect[ing] the intellectual property and other confidential information known to its key employees"⁴⁰ and Jonathan Rubenstein in particular, who had left Apple to join Palm. But this example does not justify the use of an Anti-Solicitation Agreement, for two reasons. First, an Anti-Solicitation Agreement would have done nothing to reclaim the confidential information in Rubenstein's head, as he had already left the company. Second, if the supposed justification for the requested Anti-Solicitation Agreement was to protect against the possibility that Rubenstein would take advantage of his "very, very confidential information about all of our employees in our engineering space"⁴¹ in poaching employees from Apple, this should not have been necessary assuming that Apple had an

³⁹ Murphy report, ¶ 59.

⁴⁰ Expert reply report of Murphy, ¶ 64.

⁴¹ Deposition of Danielle Lambert, 287:11-13.

employee-employer non-solicit agreement in place with Rubenstein. If Apple for some reason did not have an employee-employer non-solicit in place, that oversight hardly justifies the use of a firm-wide Anti-Solicitation Agreement to compensate for its absence.

30. Dr. Talley argues that “[p]rominent model confidentiality / non-disclosure agreements include provisions for either the unilateral or bilateral non-solicitation of the negotiating parties’ employees,”⁴² but the Model Merger Agreement for the Acquisition of a Public Company is not relevant as a justification for any of the Anti-Solicitation Agreements because there is no evidence that any of the collaborations involved merger discussions; Defendants’ interrogatory responses do not refer to merger talks or the possibility of such as grounds for the Anti-Solicitation Agreements. Moreover, the document referenced by Dr. Talley states that such non-solicitation clauses in merger-discussion agreements may need to be tailored by making them time-bound and also by “limit[ing] the provision to a specific subset of the target’s employees with such subset being defined by a specific list or category.”⁴³ None of the agreements at issue had such limitations.

31. Moreover, Dr. Talley fails to explain why contracts memorializing Defendants’ collaborations fail to include Anti-Solicitation Agreements. At his deposition, Dr. Talley confirmed that all such contracts he had reviewed contained provisions designed to protect the confidentiality of proprietary information, but that none of the contracts contained provisions to prevent collaborators from cold-calling employees of the counterparty.⁴⁴ If Defendants were concerned enough about intellectual property to include confidentiality provisions in their collaboration contracts, then they had an opportunity to exclude each other contractually from cold-calling if they felt it an important measure to protect proprietary information as Defendants’ experts argue. Importantly, and as is visible in the Apple/Google contract regarding the integration of Google Maps for use on Apple Mobile Devices signed by Phil Schiller and

⁴² Talley report, ¶ 33.

⁴³ Deposition of Eric Talley, 141:5-11.

⁴⁴ Deposition of Eric Talley, 208:7-214:2

Marissa Mayer, [REDACTED]

[REDACTED]

[REDACTED]⁴⁶ To my understanding, this would exclude the Anti-Solicitation Agreements at issue. Had Steve Jobs and Eric Schmidt intended their company-wide Anti-Solicitation Agreement to flow through to each collaboration contract, they would have included it in the individual contracts or included it by reference. Instead, Defendants' CEOs entered into their Anti-Solicitation Agreements in secret and hid them from their employees, including the individuals negotiating the very collaborations Defendants' experts now assert were the reason for the conspiracy at issue.

V. Defendants' Experts Underrepresent the Importance of Cold-Calling Defendants' Employees

32. Dr. Talley conflates labor markets and product markets in attempting to use Standard Industrial Classification (SIC) codes to minimize the overlap of technical skills between Defendants, admitting in his deposition that SIC codes are predominantly determined by products sold.⁴⁷ Just because two companies serve customers in different industries does not mean that they do not employ technical workers with similar skills. Dr. Talley tries to defend his point by quoting Intel CEO Paul Otellini's testimony that Intel did not employ "that many software people"⁴⁸, but company records show that Intel employed 6,848 software engineers during the Class period, more than any other Defendant (see Exhibit 3). The large number of software engineers at Intel has been noted in the popular press, such as Forbes reporter Brian Caulfield writing that "[w]ith the acquisition of security software vendor McAfee last year, Intel became one of the world's 10 largest software companies."⁴⁹ Moreover, Caulfield's article is

⁴⁵ 231APPLE124988, p. 18.

⁴⁶ For example, see 231APPLE124988, p. 18.

⁴⁷ Deposition of Eric Talley, 265:19-266:1.

⁴⁸ Otellini Deposition, 158:6-1.

⁴⁹ <http://www.forbes.com/sites/briancaulfield/2012/05/09/intel-is-the-biggest-software-company-youve-never-heard-of/>.

cited by Andy Thurai, Intel's Chief Architect & CTO for Application Security and Identity Products, in a blog post hosted on the company's website titled "The 'Intel' on Intel is...We do software!"⁵⁰ Intel indeed does employ many software people, and did so during the Class period.

33. Dr. Snyder also attempts to downplay the importance of cold-calling, also referred to as the recruitment of "passive" candidates. But Google's internal communication reveals considerable interest in "passive sourcing", which in a July 2006 Sourcing Diagnostic presentation is characterized as "play[ing] an increasingly larger role in recruiting as we move forward as a company."⁵¹ The "yield", or conversion rate from initial consideration to accepted offer, of passively sourced candidates is cited as particularly high compared to other channels including employee referrals.⁵² [REDACTED]

[REDACTED] This presentation corroborates Shona Brown's claim, referenced in my initial report, that Google would seek to "drain" its competitors' talent.⁵⁴

34. In particular, Dr. Snyder notes that [REDACTED]
[REDACTED]⁵⁵ If so, then Dr. Snyder should be concerned about Google's Anti-Solicitation Agreements given their impact on the ability to use employee referrals to workers at any of the Defendants with which Google had an Anti-Solicitation Agreement. As Google recruiting director Arnon Geshuri explained: "If a Google employee indicates someone from a DNC company is looking, we first need to make sure that the Googler did not source this candidate. If the Googler did reach out and initiate first contact (e.g., at a cocktail party) then we should walk away and not pursue the lead...We need a

⁵⁰ <http://blogs.intel.com/application-security/2012/06/19/the-%e2%80%9cintel%e2%80%9d-on-intel-is-we-do-software/>.

⁵¹ GOOG-HIGH-TECH-00024150, slide 3 "Executive Summary (I)"; see also slide 5 "It Will Be Challenging to Achieve Hiring Targets with Existing Recruiting Channels", where "passive sourcing" is listed as the first of three tactics by which the "hiring gap can be closed".

⁵² GOOG-HIGH-TECH-00024150, slide 11.

⁵³ GOOG-HIGH-TECH-00024150, slide 15.

⁵⁴ Exhibit 1753.

⁵⁵ Snyder report, ¶ 36.

very clear paper trail that we did not proactively pursue this candidate.”⁵⁶ In his deposition testimony, Geshuri confirmed that the above quote concerns the employee referral program.⁵⁷

VI. Dr. Talley Distorts My Research on Employee Non-Compete Agreements

35. Dr. Talley characterizes my work on employee non-compete agreements as “about patents in Michigan in the 1980s” and then claims that the findings are not relevant to 21st century Silicon Valley.⁵⁸ In doing so, he ignores several important aspects of my published work. First, the individuals whose mobility I measure in my 2009 paper which Talley references were tracked not just in the 1980s but “we were able to observe these inventors longitudinally from 1975 to 2006.”⁵⁹ Dr. Talley agreed with this in his deposition.⁶⁰ Second, these individuals were not limited to Michigan but included Alaska, California, Connecticut, Minnesota, Montana, North Dakota, Nevada, Oklahoma, Washington, and West Virginia,⁶¹ as Dr. Talley also conceded.⁶²

36. Third, my study controlled for the automotive industry to which Dr. Talley alleges my analysis was limited. As my paper itself explained, automotive patents account for a very small part (3.4%) of patents in the dataset.⁶³ When challenged on this point in his deposition, Dr. Talley responded by estimating that “one-eleventh” of all patents in my study should be automotive “because there are eleven states.”⁶⁴ Perhaps Dr. Talley is assuming that all patents in Michigan are in the automotive sector, but this is false as well. Although the published paper does not break down the automotive percentages by state in the paper, reviewing the data used

⁵⁶ Exhibit 184.

⁵⁷ Deposition of Arnon Geshuri, 187:12-188:23.

⁵⁸ Talley report, ¶ 88.

⁵⁹ Marx, Matt, Deborah Strumsky, and Lee Fleming. “Mobility, Skills, and the Michigan Non-Compete Experiment.” *Management Science* 55(6):879.

⁶⁰ Talley deposition, 251:24-252:1.

⁶¹ Marx, Matt, Deborah Strumsky, and Lee Fleming. “Mobility, Skills, and the Michigan Non-Compete Experiment.” *Management Science* 55(6):880.

⁶² Talley deposition, 252:2-5.

⁶³ Marx, Matt, Deborah Strumsky, and Lee Fleming. “Mobility, Skills, and the Michigan Non-Compete Experiment.” *Management Science* 55(6):881.

⁶⁴ Deposition of Eric Talley. 253:7-8.

for that paper shows that only one-ninth (11.2%) of Michigan patents were in the automotive sector. Moreover, as is visible in Table 4 of that paper, my regression models control explicitly for the automotive sector. Dr Talley's testimony that my paper "has a big problem in it as well as it's related to automotive – automotive industry dynamics"⁶⁵ is incorrect.

37. Fourth, the interview data from my 2011 paper⁶⁶ which Talley also cites was collected in 2009 and included interviews located in many states including several in California (in fact, none of the interviews took place in Michigan). The accompanying survey of the Institute of Electronics and Electrical Engineers drew on a random sample of their U.S. members nationwide in a variety of industries, the largest of which was software. Again, automotive is but a small portion of this dataset (15.4%).

38. Thus my research focuses on patenting inventors from 1975 through 2009, by definition in fast-paced, high-tech industries, only a small percentage of which are automotive, and with broad geographic coverage including California's Silicon Valley.

39. Dr. Talley is wrong in concluding that there is a "logical flaw[]"⁶⁷ between employees knowing what they have agreed to when they sign a non-compete agreement and being surprised that they are being asked to sign one. There is no contradiction. Even if employees are not given prior notice that they will be asked to sign a non-compete agreement, upon signing it they are aware (or at the very least have the opportunity to become aware, by reading the agreement) what they are agreeing to. My point was that the same was not the case with the secretive Anti-Solicitation Agreements among Defendants.

40. Both Dr. Talley and Dr. Snyder mischaracterize my report by asserting that I "fail[ed] to consider that there are fundamental differences between DNCCs and non-competes".⁶⁸ In fact, my report details differences between the two types of agreements,

⁶⁵ Deposition of Eric Talley. 258:13-15.

⁶⁶ M. Marx, "The Firm Strikes Back: Non-Compete Agreements and the Mobility of Technical Professionals." *American Sociological Review* 76(5):695-712. (2011).

⁶⁷ Expert report of Eric Talley. ¶ 89.

⁶⁸ Talley report, ¶ 81.

including that a) the former are between workers and firms while the latter are between firms only, and b) non-compete agreements prevent ex-employees from working at rivals while Anti-Solicitation Agreements do not. My point, to reiterate, was that both types of agreements are used to discourage interorganizational mobility and can reduce the flow of information about external job opportunities to workers.

41. Regarding mobility, my findings are consistent with those of Professor Mark Garmaise of UCLA, Professor Jim Rebitzer of Boston University, Bruce Fallick and Charles Fleischman of the Federal Reserve Board⁶⁹, Professor Ronald Gilson of Stanford University⁷⁰, and Professor Alan Hyde of Rutgers University⁷¹. As stated in the Defendants' interrogatory responses and by Defendants' experts, a key purpose of the Anti-Solicitation Agreements was to reduce the loss of personnel, which is also an aim of employee non-compete agreements. Thus they are highly relevant to this matter.

42. Regarding information flow about job opportunities, Anti-Solicitation Agreements accomplish this by blocking certain other potential employers from providing unsolicited information about job opportunities. Non-compete agreements accomplish this in that workers may be less likely to explore potential opportunities at firms they would be blocked from joining. Thus both types of agreements discourage the flow of information about external job opportunities.


43. Dr. Talley objects that Anti-Solicitation Agreements do not drive workers from their industry and thus reduce compensation as do non-compete agreements. But this is not the only way in which non-compete agreements lower compensation. The compensation-reducing

⁶⁹ Fallick, B., C. Fleischman, and J. Rebitzer. (2006). "Job-Hopping in Silicon Valley: Some Evidence Concerning the Micro-Foundations of a High Technology Cluster." *Review of Economics and Statistics* 88(3), 472-481.

⁷⁰ Gilson, R. J. (1999). "The legal infrastructure of high technology industrial districts: Silicon Valley, Route 128, and covenants not to compete." *New York University Law Review* 74: 575-629.

⁷¹ Orly Lobel, 2013. *Talent Wants to Be Free: Why We Should Learn to Love Leaks, Raids, and Free Riding*. Yale University Press.

effects of non-competes documented by Professor Garmaise do not depend on employees taking lower-paying jobs outside their industry; rather, “enforceable covenants not to compete discourage managers from investing in their own human capital” in that a non-compete “limits his future ability to negotiate a favorable compensation scheme.”⁷²



Matthew Marx
December 11, 2013

⁷² Garmaise, p.8

Exhibit 1: CV**Matt Marx**Office Address

Massachusetts Institute of Technology
 Sloan School of Management
 100 Main Street, E62-478
 Cambridge, MA 02142
 (617) 253-5539
 mmarx@mit.edu, <http://mmarx.scripts.mit.edu>

Home Address

158 Phillips Brooks Road
 Westwood, MA 02090
 (781) 686-9055

EMPLOYMENT

MIT Sloan School of Management	Cambridge, MA
Mitsui Career Development Professor of Entrepreneurship	2013-present
Alvin J. Siteman (1948) Career Development Professor of Entrepreneurship	2010-2013
Assistant Professor of Technological Innovation, Entrepreneurship, and Strategic Management	2009-present

Tellme Networks (acquired by Microsoft)	Mountain View, CA
Vice President, Solutions Delivery	1999-2004
<ul style="list-style-type: none"> Hired and led 75-person team that launched speech recognition services handling 1 billion calls per year. Grew annualized revenue from \$5M to \$100M. Reported to CEO and presented regularly to board. 	

SpeechWorks International (completed IPO)	Boston, MA
User Interface Engineer	1994-1999
<ul style="list-style-type: none"> Designed and implemented applications for Fortune 500 clients. Catalyzed decision to switch company's commercialization strategy from technology licensing to services. 	

EDUCATION

Harvard University	Boston, MA
Doctor of Business Administration	June 2009
Dissertation Title: Essays on Employee Non-compete Agreements.	
Committee: Lee Fleming (chair), Rakesh Khurana, Josh Lerner	

Harvard University	Boston, MA
Master of Business Administration (with Distinction)	2005

Massachusetts Institute of Technology	Cambridge, MA
S.M., Media Arts and Sciences (Motorola Fellow)	1995
Master's Thesis Title: Toward Effective Conversational Messaging	
Committee: Christopher Schmandt (chair), Pattie Maes, Nicole Yankelovich	

Stanford University	Stanford, CA
B.S., Symbolic Systems (with Distinction, Phi Beta Kappa, degree completed in three years)	1993

RESEARCH INTERESTS

My years as an engineer and an executive in startup companies yielded a deep interest in the emergence and evolution of new organizations. I employ both econometric methods and fieldwork to analyze how ventures assemble and deploy resources. My dissertation research explores the role of employee non-compete agreements in the ability of organizations to acquire talent and has been cited by the Massachusetts Governor's office as influencing their decision to support non-compete reform. More recently, I have constructed a dataset covering the

speech recognition industry since its inception in 1952 in order to explore how entrants formulate technical commercialization strategies and how these choices impact performance. My work has been recognized with several awards including a Kauffman Junior Faculty Fellowship in Entrepreneurship.

PUBLICATIONS

J. Singh and M. Marx. "Geographic Constraints on Knowledge Diffusion: Political Borders vs. Spatial Proximity." *Management Science* 59(9):2056-2078 (2013).

M. Marx and L. Fleming. "Non-compete Agreements: Barriers to Entry...and Exit?" in J. Lerner and S. Stern, eds., *Innovation Policy and the Economy* 12. (2012)

M. Marx, "The Firm Strikes Back: Non-Compete Agreements and the Mobility of Technical Professionals." *American Sociological Review* 76(5):695-712. (2011)

M. Marx, D. Strumsky, and L. Fleming, "Mobility, Skills, and the Michigan Non-compete Experiment." *Management Science* 55(6):875-889 (lead article). (2009)

L. Fleming and M. Marx, "Managing Inventive Creativity in Small Worlds." *California Management Review* 48(4):6-27. Winner of the Accenture Award for Contribution to Management Practice. (2007)

C. Christensen, M. Marx, and H. Stevenson. "The Tools of Cooperation and Change." *Harvard Business Review* 84(10). (2006)

WORKING PAPERS

M. Marx and D. Hsu. "Dynamic Commercialization Strategies for Disruptive Technologies: Evidence from the Speech Recognition Industry." (Under review at *Management Science*)

K. Younge and M. Marx, "The Value of Employee Retention: Evidence from a Natural Experiment." (under review at *Journal of Economics and Management Strategy*)

M. Marx and D. Hsu, 2013. "Strategic "switchbacks": dynamic commercialization strategies for technology entrepreneurs."

M. Marx, J. Singh, and L. Fleming, "Regional Disadvantage? Employee Non-compete Agreements and Brain Drain."

M. Marx, 2013. "Good work if you can get it...again: Non-compete agreements, technical expertise, and staffing small firms."

M. Marx and A. Kacperczyk, 2013. "Revisiting the Small-Firm Effect on Entrepreneurship: Evidence from Firm Dissolutions."

M. Marx, 2013. "On a Tight Leash? Venture Capital Staging and Strategic Flexibility."

M. Marx, 2013. "Co-mobility."

M. Ewens and M. Marx, 2013. "After the Thrill Is Gone: Investor Replacement of Executives in Imperiled Portfolio Companies."

A. Kacperczyk and M. Marx, 2013. "Transition to Entrepreneurship and Labor Market Discrimination."

FELLOWSHIPS AND AWARDS

2013 Ewing Marion Kauffman Foundation Junior Faculty Fellowship in Entrepreneurship (\$40,000)
2011 MIT Sloan Junior Faculty Research Assistance Program Grant (\$33,000)
2011 Edward B. Roberts (1957) Fund, MIT Entrepreneurship Center Fund Grant (\$16,500)
2010-2012 Alvin J. Siteman (1948) Career Development Chair
2010 DRUID Best Dissertation Award
2010 Academy of Management Technology Innovation Management Division Best Dissertation Finalist
2009 Academy of Management Technology Innovation Management Division Best Student Paper Award
2009 Wyss Award from Harvard Business School for Excellence in Doctoral Research
2008 Academy of Management Business Policy and Strategy Division Distinguished Student Paper Award
2007 California Management Review Accenture Award for Contribution to Management Practice
2007-2008 Ewing Marion Kauffman Dissertation Fellowship

TECHNICAL PUBLICATIONS AND PATENTS

U.S. Patent #7,321,856 "Handling of speech recognition in a declarative markup language." (2008)

U.S. Patent #7,143,039 "Providing menu and other services for an information processing system using a telephone or other audio interface." (2006)

U.S. Patent #7,140,004 "Method and apparatus for zero-footprint phone application development." (2006)

U.S. Patent #6,107,696 "System and method for handling a voice prompted conversation." (2005)

U.S. Patent #6,606,598 "Statistical computing and reporting for interactive speech applications." (2003)

U.S. Patent #6,173,266 "System and method for developing interactive speech applications." (2001)

U.S. Patent #6,747,026 "Transcription and reporting system." (2000)

U.S. Patent #5,995,928 "Method and apparatus for continuous spelling speech recognition with early identification." (1999)

M. Marx and C. Schmandt. "CLUES: Dynamic Personalized Message Filtering." *Proceedings of the ACM Conference on Computer Supported Cooperative Work* (1996)

M. Marx and C. Schmandt. "MailCall: Message presentation and navigation in a non-visual environment." *Proceedings of the SIGCHI conference on Human Factors in Computing Systems* (1996)

N. Yankelovich, G.A. Levow, and M. Marx. "Designing SpeechActs: Issues in Speech User Interfaces." *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (1995)

M. Marx and C. Schmandt. "Putting People First: Specifying Proper Names in Speech Interfaces." *Proceedings of the 7th annual ACM symposium of User Interface Software and Technology* (1994)

M. Marx and C. Schmandt. "Reliable Spelling Despite Unreliable Letter Recognition." *Proceedings of the American Voice Input/Output Society* (1994)

GOVERNMENT TESTIMONY

M. Marx. "Testimony regarding MA house Bill H1794, An Act Regarding Noncompetition Agreements." Massachusetts Joint Committee on Labor and Workforce Development, Boston MA, 10 September 2013.

M. Marx. "Testimony regarding MA house Bill H1794, An Act Regarding Noncompetition Agreements." Massachusetts Joint Committee on Labor and Workforce Development, Boston MA, 15 September 2011.

M. Marx. "Testimony regarding MA House Bills H1794 and H1799, Acts Regarding Noncompetition Agreements." Massachusetts Joint Committee on Labor and Workforce Development, Boston MA, 7 October 2009.

TEACHING EXPERIENCE AND MATERIALS

15.394, Dilemmas in Founding New Ventures. Ratings were 4.8/5.0 for Spring 2011 and 6.6/7.0 for Spring 2013. Grew enrollment from 73 to 108. Overhauled prior syllabus and introduced simulation on firing employees, since adopted at Wharton and Harvard. Nominated for Sloan Excellence in Teaching Award each semester.

Frequent lecturer in executive education and the Trust Center for MIT Entrepreneurship.

Lee Fleming and Matt Marx. "Barry Riceman at NetD (A), (B), and (TN)." Harvard Business School Case 606-090.

OTHER ACADEMIC EXPERIENCE AND SERVICE

Guest Associate Editor for Management Science, November 2012. Ad-hoc reviewer for Management Science, American Sociological Review, Review of Economics and Statistics, Journal of Law and Economics, Organization Science, Review of Industrial Organization, Research Policy, California Management Review, Journal of Business Venturing.

Organizing Committee, 2011 Harvard/MIT Strategy Research Conference.

MIT Sloan Undergraduate Program Committee, 2010-2013.

Led 2013 Ph.D admissions and recruiting for the TIES group.

Organized MIT Sloan Behavioral and Policy Sciences Junior Faculty Retreat, 2010 and 2011.

PRESENTATIONS

Discussant/panelist

- OECD Symposium on "A Policy Framework for Knowledge-Based Capital." December 2012.
- Georgia Tech Roundtable on Engineering Entrepreneurship Research (REER) conference, November 2012.
- NBER Summer Institute Intellectual Property Policy and Innovation Workshop, July 2012
- Boston Bar Association Symposium on Employee Non-Compete Agreements, July 2012
- CCC Doctoral Student Conference, April 2012
- NBER Productivity, Innovation, and Entrepreneurship Working Group, March 2012
- Labor and Employment Relations Association Annual Meeting, January 2012
- Georgia Tech Roundtable on Engineering Entrepreneurship Research (REER) conference, September 2011
- Boston Bar Association Symposium on Employee Non-compete Agreements, July 2011
- NBER conference on Innovation Policy and the Economy. National Press Club, April 2011.
- Boston University Law School, March 2011
- Boston Bar Association Symposium on Employee Non-compete Agreements, July 2010

"Patent Citations and the Geography of Knowledge Spillovers: Disentangling the Role of State Borders, Metropolitan Boundaries and Distance."

- London Business School, Strategy & Entrepreneurship Department, November 2012
- Georgia Tech Roundtable on Engineering Entrepreneurship Research (REER) conference, November 2012.

- Boston University Strategy & Innovation Department, August 2012
- Academy of Management Annual Meeting, August 2012
- Sloan Economic Sociology Working Group, July 2011

“Technology Commercialization Strategy Dynamics and Entrepreneurial Performance: Evidence from the Speech Recognition Industry”

- Harvard Business School Strategy Unit Seminar, November 2013.
- University of Toronto Rotman School of Business Strategy Unit Seminar, October 2013.
- Industry Studies Association Annual Meeting, May 2013.
- Darden/Cambridge Entrepreneurship Conference, May 2013
- Duke Fuqua School of Business Strategy Conference, October 2012
- Carnegie Mellon University, SETChange department seminar series, October 2012
- West Coast Research Symposium, September 2012
- Academy of Management Annual Meeting, August 2012
- Queen’s University Conference on the Economics of Innovation and Entrepreneurship, June 2012
- Atlanta Competitive Advantage Conference, May 2012
- London Business School Sumantra Ghoshal Conference, May 2012
- University of Chicago Organizations and Markets Department Seminar, April 2012
- The Wharton School Management Department Seminar, University of Pennsylvania, March 2012
- BYU-University of Utah Winter Strategy Conference, March 2012
- INFORMS annual meeting, November 2011
- Harvard Business School Strategy Conference, November 2011

“The market valuation of strategic human capital: evidence from a natural experiment.”

- Stanford Organizational Behavior Department Seminar, October 2012
- Berkeley Innovation Seminar, April 2012

“Regional Disadvantage? Non-compete Enforcement and Brain Drain”

- UCLA Anderson Policy Group seminar, October 2011.
- Stanford Institute for Economic Policy Research seminar, October 2011
- The Wharton School, University of Pennsylvania Management Department seminar, October 2011
- Olin School, Washington University in St. Louis, Organizations Department seminar, October 2011
- Harvard Business School, Entrepreneurial Management Department seminar, September 2011
- European School of Management & Technology Department seminar, September 2011
- Mobility and Competition Clause Workshop, Ludwigs-Maximilian-Universitaet, August 2011
- Academy of Management Annual Meeting, August 2011
- University of Virginia Darden Entrepreneurship Conference, May 2011
- NBER Summer Institute, Technology Policy and the Economy, July 2010.
- University of Maryland Entrepreneurship Conference, April 2010
- Georgia Tech Roundtable for Engineering Entrepreneurship Research Conference, November 2009
- Technology Transfer Society Annual Meeting, October 2009
- HEC Workshop on Entrepreneurial Entry, September 2009
- Wharton Operations and Information Management Department seminar, September 2009
- Association of American Geographers Annual Meeting, April 2008
- NBER Productivity Lunch, September 2009.

“The Firm Strikes Back: Non-compete Agreements and the Mobility of Technical Professionals”

- American Sociological Association Annual Meeting, August 2010
- University of Oregon West Coast Research Symposium, August 2010
- Eastern Sociological Society annual meeting, March 2010
- NBER Entrepreneurship Working Group Summer Institute, July 2009
- Wharton People & Organizations Conference, June 2009
- Carnegie Mellon / Catholic University of Portugal Entrepreneurship Research conference, January 2009

“On a Short Leash: New Organizations, New Strategies, and Venture Capital”

- Academy of Management Meeting, August 2008

“Good Work If You Can Get It: Non-competes and Ex-employees.

- NBER Summer Institute Entrepreneurship working group, July 2009

“Mobility, Skills, and the Michigan Non-compete Experiment”

- CCC Doctoral Student Consortium, April 2008
- George Washington University Law School Department seminar, September 2007
- Academy of Management Annual Meeting, August 2007
- Wharton Technology Mini-Conference, April 2007
- NBER Productivity Lunch, November 2006

MEDIA COVERAGE

“State judges take increasingly dim view of non-compete agreements.” *Boston Business Journal*, August 2013.

“Non-compete agreements getting harder to enforce.” *Mass High Tech: The Journal of New England Technology*, August 2013

“Set the Creators Free.” *Wired Magazine*, December 2012.

“Marblehead state rep eyes non-compete agreements.” *Marblehead Reporter*, 14 December 2011.

“Non-compete Laws Stifling Mass. High Tech Industry.” *RadioBoston, WBUR*, 29 November 2011.

“[Governor] Patrick Threatens Enforcement Ban on Non-competes.” *Boston Business Journal*, 16 September 2011.

“Non-compete agreements carry high costs for engineers.” *IEEE Spectrum*, 18 October 2011.

“Non-compete agreements create 'career detours'” *MIT News*, 5 October 2011.

“Want Your Innovators to Leave? Make Them Sign a Non-compete” *CBS Bnet*, 21 July 2011.

“Non-compete Clauses Stifling to Innovation in Mass.” *Boston Globe*, 3 July 2011.

“Stop Enforcing Non-Competes.” *Inc. Magazine*, 1 July 2010.

“Industry veterans share their dealings with non-compete agreements.” *Mass High Tech: The Journal of New England Technology*, 7 October 2009.

“Non-compete agreements hinder job switchers.” *Wall Street Journal / FINS*, 10 August 2009.

“Non-compete clause changes are in the air again.” *Mass High Tech: The Journal of New England Technology*, 31 July 2009.

“Clause for Concern.” *Boston Globe*, 10 July 2009.

“Start-ups stifled by non-competes.” *Boston Globe*, 21 June 2009.

“I signed a non-compete, but now I want a new job.” *CNNMoney*, 8 April 2009.

“Til lawsuits do us part.” *IEEE Spectrum*, April 2009.

“Non-compete pact called bad for innovation.” *PC World*, 20 June 2008.

“The noncompete conundrum: Holding back Bay State tech, or preserving IP?” *Mass High Tech: The Journal of New England Technology*, 11 February 2008.

“Why non-compete means don't-thrive.” *Boston Globe*, 30 December 2007.

Exhibit 2: List of exhibits and materials considered.

Academic Articles

- Lester, G. and E. Ryan, 2010. "Choice of Law and Employee Restrictive Covenants: an American Perspective." *Comparative Labor Law & Policy Journal* 31(2):392.
- Garmaise, Mark. "The Ties that Truly Bind: Noncompetition Agreements, Executive Compensation, and Firm Investment." *The Journal of Law, Economics, and Organization*. 27(2):376-425.
- Hyde, 2003. *Working in Silicon Valley: Economic and Legal Analysis of a High-Velocity Labor Market*. M.E. Sharpe.
- Saxenian, A. 1996 *Regional Advantage: Culture and Competition in Silicon Valley and Route 128*. Harvard University Press.
- Almeida, P., and B. Kogut, 1999. "Localization of Knowledge and the Mobility of Engineers in Regional Networks." *Management Science* 45(7):905.
- Breschi, Stefano and Francesco Lissoni, "Mobility of skilled workers and co-invention networks: an anatomy of localized knowledge flows." *Journal of Economic Geography* 9(4):439-468.
- Fallick, B., C. Fleischman, and J. Rebitzer. (2006). "Job-Hopping in Silicon Valley: Some Evidence Concerning the Micro-Foundations of a High Technology Cluster." *Review of Economics and Statistics* 88(3), 472-481
- Gilson, R. J. (1999). "The legal infrastructure of high technology industrial districts: Silicon Valley, Route 128, and covenants not to compete." *New York University Law Review* 74: 575-629.
- Orly Lobel, 2013. *Talent Wants to Be Free: Why We Should Learn to Love Leaks, Raids, and Free Riding*. Yale University Press.
- M. Marx, "The Firm Strikes Back: Non-Compete Agreements and the Mobility of Technical Professionals." *American Sociological Review* 76(5):695-712. (2011)
- M. Marx, D. Strumsky, and L. Fleming, "Mobility, Skills, and the Michigan Non-compete Experiment." *Management Science* 55(6):875-889 (lead article). (2009)

Declarations

Declaration of Sheryl Sandberg

Declaration of Ed Colligan

Depositions

Deposition of Ed Catmull

Deposition of Eric Talley (rough)

Deposition of Eric Snyder (rough)

Deposition of Danielle Lambert

Deposition of Paul Otellini

Deposition of Arnnon Geshuri

Deposition of Matthew Marx

Deposition of Shona Brown

Deposition of Sergey Brin

Deposition of Bruce Chizen

Deposition of Eric Schmidt

Deposition Exhibits

Exhibit 265 (231APPLE085774)

Exhibit 184 (GOOG-HIGH-TECH-00009270)

Exhibit 614 (GOOG-HIGH-TECH-00379327)

Exhibit 1741 (GOOG-HIGH-TECH-00194866)

Expert Reports

Expert Report of Edward Snyder

Expert Report of Eric Talley

Expert Report of Kevin Murphy, 25 November 2013

Expert Report of Matthew Marx

Expert Report of Daniel Lewin

Responses to Interrogatories

Intel's Objections and Amended and Supplemented Responses to Plaintiffs' Second set of Interrogatories

Defendant Adobe Systems Incorporated's Amended Answer to Plaintiff's Consolidated Amended Complaint

Defendant Apple Inc.'s Amended Responses to Plaintiffs' Second Set of Interrogatories

Google Inc.'s Responses to Plaintiffs' Second Set of Interrogatories

Defendant Intuit Inc.'s Amended Answer to Plaintiffs' Consolidated Amended Complaint

Other Documents

GOOG-HIGH-TECH-00008283

GOOG-HIGH-TECH-00625496

231APPLE123280

231APPLE124988

GOOG-HIGH-TECH-00024150

"Model Confidentiality Agreement," in Model Merger Agreement for the Acquisition of a Public Company, ABA Publishing, 2011, pp. 341-71

Stipulation to Enter Final Judgment, *United States v. Adobe, et al.*, Case No. 10-cv-01629 (D.C. Dist. September 24, 2010), Docket No.3




Hodgin, Rick, "Intel seeking Google's Android OS for future MIDs," Geek, July 10, 2009, <http://www.geek.com/mobile/intel-seeking-googles-android-os-for-future-mids-834691/>

<http://www.forbes.com/sites/briancaulfield/2012/05/09/intel-is-the-biggest-software-company-youve-never-heard-of/>

<http://blogs.intel.com/application-security/2012/06/19/the-%e2%80%9cintel%e2%80%9d-on-intel-is-we-do-software/>

Exhibit 3: Software Employees at Defendants

Summary of Software Engineers By Defendant

Defendant	Class Period	Number of Software Engineers
(1)	(2)	(3)
ADOBE	05/05-12/09	
APPLE	03/05-12/09	
GOOGLE	03/05-12/09	5,399
INTEL	03/05-12/09	6,848
INTUIT	06/07-12/09	
LUCASFILM ¹	01/05-12/09	124
PIXAR	01/05-12/09	128
TOTAL		20,111

¹Missing job title information prior to 2005.

Source: Defendants' employee compensation data.

Note: Software engineers were identified as having one or more of the following strings in their job title: SOFTWARE, SW-DEV, COMPUTER-SCIENTIST, SW_PROD_QUALITY_SPEC, SW_QUALITY_ANALYST, SWEZ_SRE, SWE_IN_QUALITY, SW_ENG, SW_QA_ENG, WEB_APPLICATIONS_ENGINEER, APPLICATION_DEVELOPER, APPS_DEVELOPER, APPLICATIONS_DEVELOPER, SW_QA_ENG, SW_INFRASTRUCTURE. Similar results are found when also matching on PROGRAMMER.